

## REMARKS

The Applicant respectfully requests favorable reconsideration of the application in view of the above amendments and the following remarks.

Claims 1-28 are pending in the present application; claims 9, 10 and 16-21 are withdrawn from consideration following a restriction requirement; claims 1-8, 11, 12 and 22-34 are rejected; claims 13-15 are objected to.

At the very outset and before stating the grounds for rejection, the Examiner requested that the Applicant clarify the issue of the use of counterions, and in particular potassium counterions, in the ink jet art. The Examiner added that, beyond the scope of claim 4, there is no description in the specification of the inclusion of counterions in the material. The Applicant will now clarify the issue.

Regarding the mention of counterions in the description, the Examiner's attention is respectfully directed to the instant specification at page 30, Table VII, second column labeled Silica Dispersion (Counterion), where the counterions in the various silica dispersions are listed. In particular, the potassium (K) counterions are included. Further, the specification states on page 5, lines 24-28 that the counterion of anionic colloidal silica particles comprises sodium (Na<sup>+</sup>), potassium (K<sup>+</sup>) and ammonium (NH<sub>4</sub><sup>+</sup>) and that the preferred counterion is potassium. Nalco 2329 is an anionic silica with a sodium (Na<sup>+</sup>) counterion (see Element 16 in Table VII) and Nalco TX-11005 lot XC1K0153 is an anionic colloidal silica with a potassium (K<sup>+</sup>) counterion. The Applicant has included in this response a copy of U.S. Patent No. 4,915,870 which describes potassium stabilized silica sols.

The negative charge on anionic colloidal silica must be balanced by a positive charged species (i.e. a positive counterion) to make it electronically neutral. Hence, counterions are inherently present in commercial anionic colloidal silica. It is believed that this explanation satisfies the Examiner's concerns about the counterions in the material.

Claims 1-8, 11, 12 and 22-34 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Niu et al. (USP 6,689,433). The Examiner argues that the reference teaches the desirability of properties like drying times, gloss and specular gloss and that, based on the teachings, it would have been

obvious to one of ordinary skill in the art to determine materials and layer thicknesses so that these properties would be achieved. The Applicant respectfully traverses the rejection.

Niu et al. (US 6,689,433) discloses a print media with properties very different from that described and claimed in the application. For example, instant claim 1 recites an element having a dry time of less than 1 minute. In contrast, in column 29, lines 51-52, the reference teaches a longer dry time of 1 to 2 minutes.

The longer dry time is to be expected from the high level of binder taught by the reference (55-100% by weight) at column 20, lines 23-29. In contrast, the application describes "a hydrophilic binder in an amount insufficient to substantially alter the porosity of the porous ink-receiving layer" and the claims recite that the binder is present in an amount of between 2-15% by weight of the of the image receiving layer.

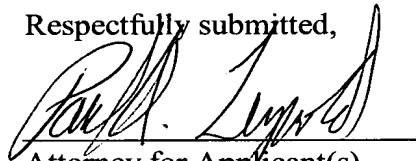
The substantially higher binder content in the reference indicates that Niu et al. are teaching a non-porous (swellable) element rather than a porous element like the Applicant's; the application teaches that the porosity of the layer is important, hence it is necessary to use low levels of binder. Swellable print media in general dries more slowly than porous media as is discussed on page 2, lines 21 to 25 of the application. The disclosure of Niu's swellable element does not teach, give incentive for nor make obvious the instant invention. To further distinguish the instant invention over the reference, the Applicant has amended the claims to recite the term "porous". Support for the amendment can be found on page 4 and throughout the application. In particular, *see*, Summary of the Invention and Advantages of the Invention.

The Examiner observed that "it would have been obvious to one of ordinary skill in the art to determine materials and layer thicknesses so that sufficiently short dry times and high gloss are achieved". The Applicant disagrees. Increasing the thickness of "swellable" media does not increase the dry time; rather it increases the ink capacity. In other words, if an ink droplet hits the surface of a print media that has little or no porosity (i.e. a swellable media), it will diffuse into the layer at a relatively slow rate. Increasing the thickness does not affect the rate at which the ink drop penetrates. It just means the thicker

swellable layer can hold more ink because of it's thickness. In any event, the application now claims a porous element.

In view of the distinctions made above between the two inventions, the Applicant respectfully urges the Examiner to reconsider the application, withdraw the Section 103(a) rejection and issue a Notice of Allowability.

Respectfully submitted,



---

Attorney for Applicant(s)  
Registration No. 26,664

Paul A. Leipold/rgd  
Rochester, NY 14650  
Telephone: 585-722-5023  
Facsimile: 585-477-1148